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KNOWLEDGE

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OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY



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OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

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Col. Glenn W. Harp Deputy Commander

Command Sgt. Maj. Tod L. Glidewell Command Sergeant Major

Bill Zaharis Executive Director, Future Operations

James Yonts Director, Strategic Communications

Chris Frazier Managing Editor

Bob Van Elsberg Editor

Paula Allman Editor

Blake Grantham Graphic Design

Taryn Gillespie Graphic Design

Leslie Cox Graphic Design

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Mission statement: USACRC supports our Army by collecting, storing, analyzing, and disseminating actionable information to assist Leaders, Soldiers, Families, and Civilians in preserving/protecting our Army's combat resources.

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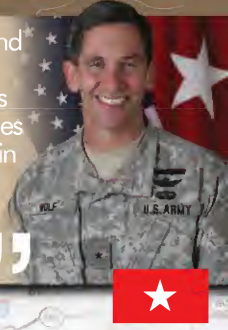
THE LITTLE TH

Spc. Wilkerson had just returned from a tour in Iraq, completed the required reintegration training and was now ready to take his much-anticipated block leave with his Family. After making several trips to load the family SUV, all preparations were completed and the Family was ready for their 13-hour trip to the Sunshine State to visit relatives and relax. As everyone was buckling their seat belts, Wilkerson asked his wife if she had the directions and was ready to assume her "navigator" duties for the long trip. She quickly said, "No, I don't. Didn't you complete our TRiPS planning when you submitted your leave form? That's where we always get our directions." Wilkerson was speechless and shook his head in disbelief. He knew he had forgotten this important step in their vacation planning.

Unfortunately, the Army has seen a rise in privately owned vehicle (POV) accidents during the first quarter of fiscal 2009. Most of these accidents involve either poor judgment or indiscipline which contributed to the loss of a Soldier and, in some cases, also claimed the lives of innocent civilians. Often during our hurried schedules, the little things that are not routinely performed become forgotten or overlooked. When it comes to driving a POV, this can lead to an accident. So, how do we ensure our Soldiers remain vigilant and cognizant of the little things? The answer resides within the roles of our noncommissioned officers and Families.



> "An **IMPORTANT** and **CRITICAL** point to **REMEMBER** is users of **TRiPS** are 6.5 times **LESS LIKELY** to be in a **FATAL** POV **ACCIDENT** than **non-TRiPS** users."



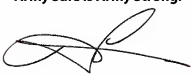
Noncommissioned officers are our Army's first line of defense in supervising Soldiers' on-duty and off-duty activities. They enforce standards and provide essential guidance and mentoring for our Soldiers by demonstrating the Army values in their everyday lives. Likewise, through their sharing of lessons learned and best practices, noncommissioned officers can influence Soldier actions before an incident occurs by ensuring on-duty and off-duty composite risk management (CRM) tools are not overlooked and forgotten.

What's equally important is Family members becoming actively engaged in the business of keeping Soldiers safe by being a "home-front battle buddy." The Army recognizes that the strength of the Soldier comes from the strength of their Families, and engaged Families can positively impact a Soldier's decision-making process. Their involvement in completing the online TRiPS process at https://safety.army.mil allows Family members to participate in the risk assessment process and, subsequently, risk mitigation. An important and critical point to remember is users of TRiPS are 6.5 times less likely to be in a fatal POV accident than non-TRiPS users.

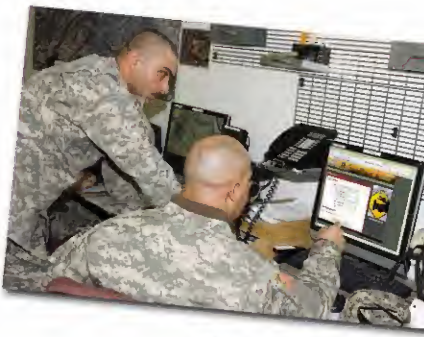
I ask you to involve your Soldiers' Family members in your organizational activities as often as practicable. Encourage them to take a look at the tools available in the Family Engagement Kit, which is located on the USACRC Web site. The kit provides the resources Families need to understand the risks facing our Soldiers, meet the challenges of off-duty safety and lend a hand in the identification of off-duty hazards that may go overlooked.

I ask each of you to remain vigilant about safety and apply CRM to all daily activities, both on and off duty. The little things, when not properly taken into account, can quickly become overwhelming and, if not properly factored in, fatal. I thank each of you for your efforts and ask for your continued help in protecting our most vital resource – our Soldiers.

Army Safe is Army Strong!



WILLIAM T. WOLF
Brigadier General, USA
Director of Army Safety



ANATOMY OF A TRAGEDY

BOB VAN ELSBERG
Driving Task Force
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.



As a magazine writer, I normally don't see pictures of accident victims, but this time was different. I looked at the computer screen and froze. A young woman lay slumped in a vehicle's right-front passenger seat – her face cut and blood stains on her shoulder and seat belt.

Her badly cut right arm hung out her damaged door, which had been close to the point of impact when the vehicle spun off the road and slammed into a tree at nearly 60 mph. Soot from a controlled burn had covered the tree's trunk. Now it smudged her face and right shoulder – heartbreaking testimony to her last few moments.

I clicked again. A young man in a brightly striped shirt sat in the middle of the backseat. His head was resting against the seat's top – the vehicle's roof crushed down upon him. The headliner in front of him was smeared with blood. With his mouth open and his eyes closed, he appeared to be in a deep sleep. If only it could have been that.

Once more I clicked. A white sheet partially covered a Soldier lying near the vehicle. His nose and mouth were bloody and his eyes, half closed, stared into nowhere. He'd been thrown from the vehicle and landed in a bed of pine needles. I'd looked at his picture in the memorial program. His smile made him look like he had the world by the tail. He was a motivated young Soldier who served on unit funeral details to honor the fallen. Now, sadly, he had become one.

I pondered what it meant for these three to die in their teens. How do you measure what they lost? What would they give to change a decision and live another 60 or 70 years? But that choice had swiftly and unexpectedly slipped away from them. And they will never have it again.

I clicked to look at the vehicle. I could barely recognize it as a large sport utility vehicle (SUV). The impact had crushed most of the right side – in some places as deep as 18 inches. The roof was so badly crushed rescuers had to cut it off to reach those inside.

I stopped clicking. Instead, I asked myself, "How on earth – or maybe in hell – did this happen?"

Peeling Back the Onion

Accidents are rarely random, unrelated events. Therefore, it's important to look at what happened and ask, "Why?" Let's begin peeling back the onion by returning to the weekend of this accident to see what contributed to this tragic event. To respect the privacy of the Soldiers and their Families, the Soldiers have been given fictional names.

The Weekend

It was a Friday going into a normal two-day weekend. The battalion commander and his command sergeant major gave a safety briefing to the Soldiers during a formation held that





afternoon. Additional safety talks from company commanders and first sergeants emphasized the key points – don't drink and drive and be respectful in your personal relationships. The message was fairly standard – one which many Soldiers could easily recite. (Is this a routine that sounds familiar to you?)

Spc. Randy Chambers missed the safety briefings that afternoon. Busy with an administrative job in his unit, he wasn't released until 7 p.m. But before he left, his supervisor gave him a safety talk. Chambers then headed to his barracks room, where he relaxed and played video games until after midnight. He then crashed and slept until about 11:30 a.m. When he woke up, he grabbed some lunch and headed back to his room to play video games with his friend, Pfc. Derrick Wilson. It was just after midnight when they talked another friend, Pfc. Tonya Ellison, into driving them to a club in Chambers' SUV. She agreed and had another friend, Spc. Tony Martinez, follow in her car.

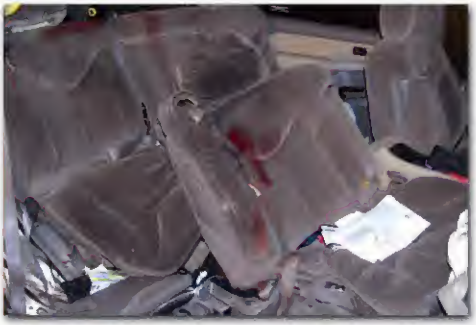
Ellison was too young to drink and chose to wait outside the club in her car with Martinez. When the club was raided about 3 a.m., Wilson and Chambers ran out and jumped into the SUV. Before Ellison could stop them, they sped off, going too fast for her and Martinez to catch up. Fortunately, both vehicles made it back safely to the barracks and the Soldiers went to their rooms.

The Accident

It was about noon on Sunday when Chambers woke up. He ate snacks, drank and played video games well into the evening. Wilson and Ellison came to his room that evening, but Ellison left about 10 p.m. after Wilson repeatedly asked her to drive the three of them to a club.

Chambers and Wilson quickly headed downstairs to the parking lot where Chambers kept his SUV.





As they passed a picnic table in front of the barracks, three other Soldiers – Pfc. Angela Metcalf, Pfc. Michelle Harris and Pfc. Michael Harmon – asked if they could tag along. Chambers agreed, and they all piled into his SUV. Metcalf sat up front and buckled herself in. Harmon, Wilson and Harris piled into the backseat, choosing not to wear their seat belts.

Chambers pulled out of the parking lot and headed onto a road that would take them off post. After stopping for a red light at an intersection, Chambers

hit the gas, accelerating to at least 60 mph – well above the 35-mph speed limit.

As he raced down the eastbound lanes, something flew through the open driver-side window and hit Chambers in the face. As he was momentarily distracted, his SUV began drifting toward the right shoulder. Realizing he was about to go off the road, he cut left on the steering wheel. But he cut too hard and sent the SUV spinning counterclockwise across the road into the westbound lanes. The tires, still under power, left rubber "shudder" marks across the white-painted road markings.

The SUV careened rear-first across the westbound lanes, hitting the curb first with the right-front wheel and then the rear wheel. The impact popped the vehicle above the curb. The SUV's front pivoted sharply to the right as the vehicle hurtled toward the trees. The shoulder dropped away and the SUV became airborne and began rolling to the right. Less than a quarter-second later, it smashed into a large pine tree, impacting just behind the right-front tire. The SUV pivoted around the tree, crushing the vehicle's right side between the front and back wheels and destroying Metcalf and Harmon's survivable space. Still trying to roll to the right, the vehicle's roof caught the tree and crushed down upon Wilson. The rear wheel then caught the tree and caused the SUV to rebound, spinning violently to the right and ejecting Harmon.

The Aftermath

Chambers had only minor injuries. He tried to open his door, but it was stuck. A passing motorist saw the accident, called 911 and helped Chambers out of the vehicle. Chambers checked Metcalf, Wilson and Harmon and found them unresponsive. He heard Harris moaning in the back of the truck, but she was trapped inside the crushed vehicle, lying in the cargo area with her legs over the backseat. First responders helped Chambers to the curb, where he could be treated by medical personnel. Post emergency medical services personnel arrived quickly and, after assessing all the victims, focused their efforts on saving Harris. After cutting the roof off the vehicle, they removed her and transported her for treatment. She survived, but possibly with permanently disabling injuries – a hard reality for any 19-year-old woman.

Why?

Why did this accident happen? When you look closely, you find several factors.

First, Chambers chose to drive when he was intoxicated and fatigued. That combination severely impaired his judgment and rendered him incapable of safely handling his vehicle.



Second, Chambers was overconfident in his driving abilities and showed indiscipline by speeding. His use of alcohol impaired not only his skills but also his judgment and he wound up killing three Soldiers and crippling a fourth. Whatever the legal actions taken against him, he will live with the memory of what he did that night.

Third, there were the passengers who rode with him. While Metcalf buckled up in the front seat, none of the three backseat passengers chose to wear a seat belt. How often had they heard about the importance of wearing seat belts in surviving accidents? Nor did Chambers ensure they buckled up before taking off. As the driver, he was responsible to make sure that happened. While the survivable space for Metcalf, Harmon and Wilson was destroyed during the accident, the backseat position where Harris sat was not. However, because she was unrestrained, she flailed about inside the SUV, increasing the severity of her injuries.

Lessons Learned

Remember how the unit's Soldiers described their weekend safety briefings? The prominent safety message was don't drink and drive. There's a reason why that message is stressed. Perhaps it is best expressed in the words of a former Virginia state trooper who watched helplessly as a drunken sergeant slammed into a concrete barrier in 2001.

"When you drink alcohol – from the very first sip – it affects your judgment," he said. "Before



BATTLE BUDD

It's no secret Leaders can't be with their Soldiers 24 hours a day in garrison. There are times when the only wall keeping a Soldier from making a deadly mistake is another Soldier. Yet, even peers can be Leaders if they have the advantage of a few extra years of life. The experience provided by those years can be, like "body armor," a useful tool to keep a younger Soldier out of a casket. A 22-year-old specialist who knew the three Soldiers lost in the story "Anatomy of a Tragedy" spoke of the role more experienced Soldiers can play in preventing such tragedies.

"If I had been out there that night, I would not have let them go," he said. He explained he would have kept them from getting in the car with an intoxicated driver – no matter what it took.

Getting involved in situations like that is like being a battle buddy in combat. But stepping into that role takes a conscious decision backed up by action. However, as in battle, there is strength in numbers. To be effective, the specialist explained, these more experienced Soldiers need to develop a strong working relationship and support each other when the need arises.

"We need to get to know each

it changes your physical hand-eye coordination, it affects your reasoning and your thought process. If you've had a few drinks and you're walking out to your car telling yourself, 'I can make it this time,' remember you're talking to a drunk."

The passengers were responsible to wear their seat belts – but that wasn't their only responsibility. They had a responsibility to evaluate the driver's condition and ask themselves whether riding with him was a wise choice. Before getting into someone else's vehicle, look at the driver and ask yourself, "Would I be willing to accompany them in combat if they were in this condition?" If not, why accompany them in a car? In either situation, your life is in their hands. Then take it one step further. If you wouldn't trust them with your life, don't just walk away so they can drive off and kill themselves or others. Confront them tactfully. If need be, take away the keys. Sure, they may get angry at the moment, but later they'll be grateful to be alive.

At the core of the onion, everyone involved in this accident was responsible for safety in some way. When everyone starts taking that responsibility, stories like this will end.«



IES FOR LIFE

BOB VAN ELSBERG
Driving Task Force
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

other a little bit more," he said. "I know if a couple more of us were outside … I think it (the accident) could have been prevented."

There is a strong argument to be made for his suggestion of peer Leaders helping prevent accidents. Working together, they can influence younger Soldiers who lack the age and experience to realize the trouble they're getting into. Because these peer Leaders work and live with Soldiers, they are in a good position to know who might be at risk. Beyond that, they are more likely than unit Leaders to be in a position to intervene while there is still a chance.

Unfortunately, there can be no turning back the clock on this fatal accident – only the chance to learn from it and carry those lessons into the future. Before this accident, the specialist didn't believe something this tragic could happen in his unit. Because safety was strongly stressed by unit Leaders, he believed his fellow Soldiers got the message. But now he knows different. In the barracks environment, just as in combat, Soldiers must be battle buddies – and that includes stepping into the role of a Leader when trouble arises. If ever faced with something like what happened in his unit, the specialist is determined to act.

"If I'm out there, it's not going to happen," he said. "I'm getting in the middle of it. I'll do everything I can to stop it."«





Home on the Range

1ST SGT. (RET) SEAN O'BRIAN
Installation Safety Office
Fort Jackson, S.C.

Editor's note: Although the author originally wrote this story several years ago, his ideas on range safety are still relevant and can save Soldiers' lives.

Throughout my Army career, I picked up a few things that have been effective for me. I wish I could say I came up with them all on my own, but I was fortunate enough to serve with excellent Soldiers, and I have shamelessly stolen all their good ideas. I hope these ideas might help you run a safer, more effective range.

First and foremost, you must go through the range certification process at your installation to ensure you're up to speed on everything particular to your installation, the range and the weapons systems you're using.

▪ **Talk to range control.** These are the smart folks when it comes to range operations; they do it full time. Normally, we only deal with them when we pick up the range packet or when we're trying to clear the range at the end of training. Don't just do the minimum coordination required to get the range up and running; take the time to talk to range control cadre members who manage that particular range. You will find the majority of these guys take pride in what they are doing and have a genuine desire to help you operate a successful range.

▪ **Don't ignore the guys in civilian clothes.** We often tend to look right past these guys. You're costing yourself the opportunity to learn something. Some of these guys have been involved with these ranges longer than any of you have been wearing green. If you can't learn something from somebody with that kind of experience, then you aren't trying hard enough.

▪ **Learn from others.** Talk to units that have run that range recently. Find out what kind of problems they encountered. If things went well, see if you can incorporate their plan into your training. If they produced a "chicken noodle hoagie," find out what happened and implement countermeasures to ensure it doesn't happen to you. I was in one unit where it was a requirement to contact the last unit that had fired on that range. Makes sense to me.

▪ **Plan, plan, plan.** Work your pre-range checklist. It is really embarrassing when the range is "hot" and the unit is ready to go, but they have to sit in the bleachers and cool their heels while you send the HMMWV back to the billets to get the critical item you forgot to bring. (Been there, done that, had the one-way conversation with the boss later on!) If you have a good plan, it will help you to conduct a smooth operation – without having to vigorously exit your own "fourth point of contact" at the last minute.

▪ **Haste is not the same thing as efficiency.** If you're trying to get an eight-hour range done in four hours, then you're taking shortcuts somewhere and setting up yourself and your unit for failure. Do it right and do it in a controlled manner. Don't inhibit safety or training due to time-management issues.

▪ **Brief and rehearse your range detail.** Everybody from line safeties to the ammunition point detail should know exactly what they're doing before the unit is lined up ready to shoot. Just because you know what you want them to do and how you want them to do it doesn't necessarily mean they know it – unless you have adequately communicated it to them. Osmosis

has limited effectiveness in a range setting. Proper briefings and rehearsals will save you time and headaches once you get there.

- **Prepare and rehearse your range safety briefing.** Put your briefing together and use cue cards, flip charts or whatever else you need to provide a comprehensive safety briefing. "Hip shots" have the potential to omit vital information that the firers need.

- **Be prepared for emergencies.** Have primary and alternate range control/casualty evacuation frequencies memorized, written down and set on your radios. Have backup communications available. Talk to your on-range medic and make sure he/she is on the ball and has the medical knowledge and supplies to deal with any possible emergency. Obviously, you hope you will have no need for a medical response during your range, but hope is not a course of action and you want to be able to keep a bad situation from getting worse in case you have an accident.

- **Do the prep work.** You should be competent in all aspects of every weapons system you'll be using on the range. You do need to have the appropriate field manuals (FM) and technical manuals available on the range, but it shouldn't be the first time you have opened them. If you are conducting a range with weapons that you do not use on a regular basis, consider talking to a unit that does. Conducting a demolitions range? Why not pick up the phone and talk to the engineers, explosive ordnance disposal and/or the Special Forces guys and get some hot tips on how to do it right? Small-arms range? Run down the street and talk to the grunts. You may even be able to talk some of these guys into coming down to your unit and conducting classes for you. Teamwork is not just a concept and it shouldn't stop at your front door.

- **Train Soldiers on the basics.** A good marksmanship program will begin long before the Soldiers arrive on the range. The appropriate 23-series FM and the Soldier's Manual of Common Tasks – Warrior Skills will get you started in the right direction. It's sort of like driving a car. You wouldn't take someone out to road test before they had received classes and written testing, would you? Think about it.

Here's the bottom line. If your range is properly executed, then safety and realistic training should be able to co-exist, with one reinforcing the other. That should be your goal.



Close Call in Afghanistan

CHIEF WARRANT OFFICER 3 ELMER H. BAYER III
A Company, 6th Battalion
101st Aviation Brigade
Fort Campbell, Ky.



TAN

Editor's note: In Army aviation, a lot of time and effort is devoted to assessing aircraft accidents while trying to determine what caused them. This is done so other Army aviators can learn from those lessons without having to experience them firsthand. There are also lessons to be learned from experiences that have a happy ending, those that could have ended in disaster but didn't. The following story is about two of those aircrews that made a critical decision to land their aircraft and delay a mission instead of continuing in hazardous conditions with potentially devastating results.

On Feb. 21, 2008, we were assigned a mission to conduct a VIP transport from Forward Operating Base (FOB) Asadabad (ABAD), to Naray, to Monti and then to Bagram Airfield (BAF), Afghanistan. With the flight plan filed and weather predicted to be good for the mission, we conducted an air mission brief and then individual aircrew briefs.



In Chalks 1 and 2 were UH-60 crews, with the air mission commander (AMC) flying lead. I was the pilot in command (PC) in Chalk 2. We departed on time that morning and the flight to ABAD was uneventful. We noticed the ceiling was dropping and a cloud layer was forming above the valley. The aircrews went into the ABAD tactical operation center (TOC) and received a weather briefing for the next leg of the flight to FOB Naray. The weather was reported as better than three miles visibility with more than a 2,000-foot ceiling.

The flight departed from ABAD to FOB Naray and landed without incident. The VIPs departed for their meeting and the aircrews met to discuss the weather. The weather in the valley from where we came appeared to be deteriorating. We again called the FOBs to check the weather on the return flight and were given good weather. After the VIPs returned to the aircraft, we headed toward Monti.

FOB Monti was a brief stopover; however, while we were there, it began to rain. The VIPs departed for their meeting and the aircrews met again to discuss the weather and route home. When the VIPs returned, the flight departed for BAF.

During the return flight, about 15 miles north of FOB Jalalabad Airfield (JAF), we again attempted

communications to assess the current weather. We made multiple calls to JAF tower without making contact. We also attempted contact with Shadow TOC by satellite communications (SATCOM) and through text messaging on Blue Force Tracker (BFT). Saber operations answered the SATCOM call and gave a weather brief of 6,000 meters visibility and a 2,000-foot ceiling at BAF. Based on the weather brief and the current conditions we were flying in – five miles visibility and a 3,000-foot ceiling – we decided to continue the flight.

Visibility and ceiling remained constant for most of the return flight. About 14 miles from BAF, snow began to fall and the free air temperature gauge read right at 4 C. We turned on the anti-ice equipment and continued toward Bagram. Roughly a minute later, we entered what seemed to be a white wall of thick snowflakes. The visibility and ceiling rapidly dropped, so we made the call to slow the flight and descend. We were at an altitude of about 300 feet with 70 knots indicated airspeed (KIAS) when the flight encountered an instant drop in visibility to about 200 feet.

Chalk 2 was about two rotor disks behind Chalk 1, with both aircraft having sight of the ground. The AMC spotted a road and made an immediate left turn to land there. As lead entered the left turn, we, in Chalk 2, lost sight of him. At this point, we decided to make an immediate right-hand descending turn to maintain separation from Chalk 1. We proceeded down a small valley at about 50 feet and 20 to 30 KIAS, lowering our altitude and slowing the airspeed to keep the terrain visible.

We tried multiple attempts to contact lead on the secure radio, but we were unsuccessful. After what seemed like an eternity, even though it was only about two minutes, we made contact with lead over the UHF guard radio. We reestablished secure communications and began coordinating a linkup plan. The AMC then passed the grid of their current location. We slowly worked our way back to the road where Chalk 1 had landed. We landed about 30 meters behind them and shut down. After landing, we made contact with division main and Shadow TOC via SATCOM, where quick reaction forces (QRFs) were alerted and a ground convoy assembled and dispatched.

At the scene, a security detail for the VIPs was set up. There were only three security guards, so we made the decision to supplement the guards with members of the aircrews. We dismounted two of the M240 machine guns from the aircraft, positioned them at the front and rear of the aircraft on the road and established a perimeter. We took turns pulling guard and warming up in the aircraft. It was wet and cold, and the temperature was dropping toward 0 C.

Almost immediately after landing, a crowd of local nationals gathered nearby. There were about 30 people on the side of the hill to our left, with 15 to 20 more on the opposite side. Vehicles began to approach from our front and rear on the road. After about three hours, the QRF arrived. The QRF took command of the VIPs and the aircrews stayed overnight with the remainder of the QRF and aircraft. It was a long, cold night. There was not enough fuel to keep the aircraft auxiliary power unit running for heat because



we needed to conserve fuel to get back to the FOB when the weather lifted.

We maintained communications with Task Force Shadow TOC, division main and numerous other elements throughout the night. About noon the following day, Shadow TOC launched two UH-60s and an AH-64 from BAF, which arrived shortly thereafter. Two new crews were dropped off to fly the aircraft back and we returned to BAF without incident.

Lessons Learned

Flying is always serious business. If we are going to fly an aircraft in marginal weather, we better be proficient in our flying abilities, adhere to standing operating procedures (SOPs) and have strong aircrew coordination skills and the proper radios to communicate with the TOC for updates on potentially hazardous weather conditions.

In combat, we push ourselves and our aircraft to support the troops on the ground, complete the mission and protect the occupants onboard. Although it could have been much worse, it wasn't. Here are some of the lessons we learned.

•Update established SOPs to reflect the following:

- Notify all aircraft of inclement weather via the multi-user Internet relay chat.
- Develop a means of notifying all BFT-outfitted aircraft with an ALCON message to anyone flying.
- Incorporate EDM text checks into radio check procedures.
- Use high-frequency text as another means of notifying aircrews of potentially hazardous weather conditions.
- Place repeater stations that will allow aircrews to receive current automatic terminal information service information from airfields.

•Carry external communications (e.g., cell phones, smaller radios with antenna, coax cable and extra batteries when aircraft power is shut down). The PRC-1796 can also be used.

Sometimes communications can be a challenge because of terrain, distance and weather. Although we obtained a valid weather briefing from a military forecaster and weather updates at every stopover, we still had problems staying ahead of the weather because of our radios. It was both crews' decision to land the aircraft instead of continuing when the conditions did not allow it. These crews came home safely by staying ahead of the aircraft and weather, remaining calm, thinking clearly, executing good judgment and working together, which culminated in a happy ending.«



"**FLYING** is always **SERIOUS** business. If we are going to **FLY** an **AIRCRAFT** in marginal **WEATHER**, we better be **PROFICIENT** in our flying **ABILITIES**, adhere to **STANDING** operating **PROCEDURES** (SOPs) and have **STRONG** aircrew **COORDINATION** skills . . ."

NO TAPING PLEASE

PAMELA J. PROPER
Public Affairs Office
U.S. Army Joint Munitions Command
Rock Island Arsenal, Ill.



In September 2007, a Soldier lost his arm when a grenade detonated as he attempted to remove tape from the safety pin and fuze. Two other Soldiers in his squad were also seriously injured in the incident.

Every day, a Soldier somewhere will tape the safety pin and lever of a freshly issued hand grenade. Sometimes he will tape the safety pin to keep it from clanging. Sometimes he will tape a grenade to his combat vest. Sometimes he will tape the grenade for no other reason than that was what he was told to do.

According to Larry Baker, a Forces Command explosives safety and range manager, taping isn't necessary.

"To the best of my knowledge, there is no evidence in the history of the M67 hand grenade to suggest that it requires taping and there is no evidence that a Soldier needs to tape it because of inherent safety issues," Baker said.

And Baker should know; he has nearly 30 years of experience in the ammunition business, which started when he was drafted during the Vietnam War.

"In Vietnam, we could not tape a grenade because tape just won't stick in the jungle," Baker said. "There is a perception which exists in the Army today that Soldiers need to put tape on a hand grenade and that perception has become a reality. It is commonplace."

According to Baker, there is no real reason to tape a grenade because the Army now has grenade pouches for Soldiers to transport them. These pouches eliminate the possibility of the grenade getting snagged on something or becoming entangled.

Baker said there were problems in the past with one specific explosive, the MK141, a diversionary, nonfragmenting hand grenade. It was a Navy- and Marine Corps-unique item used mostly by Special Forces in Afghanistan. Even though the Army no longer issues this grenade, it was the catalyst for the practice of taping grenades. Now, Baker said, Soldiers tape everything.

Taping is especially problematic during munition turn-ins. Every unit that completes a rotation in Afghanistan or Iraq is required to turn in unused ammunition, which is then inspected. That's when the situation gets dicey.

"Some of these grenades are turned in and all the ammo handler can see is a ball of tape," Baker said. "He doesn't have X-ray vision. He can't see if the pin is secure. There is no way of knowing what is under all that tape."



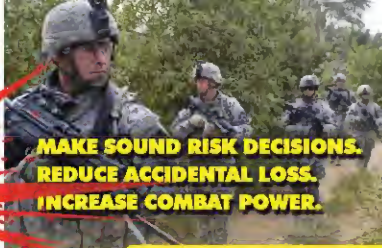
From a supply standpoint, there is also a chance that lot numbers are pulled off with the removal of tape. Once those numbers are gone, the ammunition becomes unserviceable. Ammunition experts say tape also leaves a sticky residue on grenades, and it takes a lot of time to remove tape, which makes the inspection process more lengthy than needed. With some 900,000 grenades currently in service, Baker said taping exposes ammo handlers to unnecessary risks.



The Army issued two safety alerts in 2007. Then, after the incident in September 2007 in Al Asad, Iraq, the U.S. Army Joint Munitions Command (JMC) issued an Ammunition Information Notice on the safety risk of taping grenades. By the way, the Soldier who was permanently injured in that incident was removing tape from an M3A2. Had it been an M67, Baker said the Soldier would have been killed.

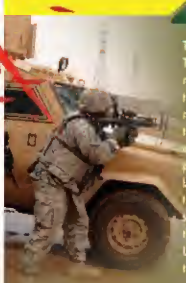
In an effort to address the perception in the field that current safety mechanisms are inadequate, the Army will soon introduce a confidence clip. The clip goes between the M213 fuze and the M67 grenade body. The U.S. Army Infantry School at Fort Benning, Ga., is the proponent for the hand grenade clip, which was tested at the Soldier Battle Lab.

The JMC began retrofitting existing stockpiles of M67s with the clip in December. The remaining stockpile is scheduled to be retrofitted between January 2009 and June 2011. Beginning in March, all new M67 hand grenades produced will include the confidence clip. Army ammunition experts are optimistic this new feature will increase Soldier confidence in their armament and equipment and negate the perceived need to tape grenades.«



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ARMY STRONG
ARMY SAFE

Caught by

CHIEF WARRANT OFFICER 4 GLENN SIEGRIST
5th General Support Aviation Battalion, 158th Aviation Regiment
12th Combat Aviation Brigade
Ansbach, Germany

Just when you think you have it made in the shade as you're pulling sweet duty in Kuwait for a week or two, along comes a haboob that turns your ordinary night vision goggle (NVG) flight into one for the books.



FYI

What is a Haboob?

A haboob is a type of intense sandstorm commonly observed in the Sahara desert (typically Sudan), as well as across the Arabian Peninsula, throughout Kuwait and in the most arid regions of Iraq. Haboob winds in the Arabian Peninsula, Iraq and Kuwait are frequently created by the collapse of a thunderstorm. During thunderstorm formation, winds move in a direction opposite to the storm's travel, and they will move from all directions into the thunderstorm. When the storm collapses and begins to release precipitation, wind directions reverse, gusting outward from the storm and generally gusting the strongest in the direction of the storm's travel.



a Ha'boob

Our unit, Company B, 5/158th General Support Aviation Battalion (GSAB), "Big Windy," was tasked to send three CH-47D helicopters from Iraq to Kuwait May 9, 2008, to transport Soldiers, Airmen and Seamen to and from Camp Bucca, Iraq. Most crews would assess this as a simple mission because they had performed it many times since Camp Bucca was established.

After arriving at Udairi Army Airfield, the crews spent the next few days going about their normal routine of preparing their aircraft, coordinating services, briefings and submitting flight plans.

On day five of the mission, the flight was going as planned. The flight of three Chinooks was on their fourth turn back from Camp Bucca. The standardization pilot from Big Windy was giving me an instrument evaluation in the lead aircraft. In Chalk 2, we had the highest risk crew since this was only the pilot in command's (PC) second flight as PC. In Chalk 3, bringing up the rear, we had an instructor pilot (IP) and the platoon leader.

As we took off on the fourth turn of the night, I thought our visibility had diminished to the west and mentioned it to my left-seater. He agreed and called Chalk 2 to get a weather update. We got a thumbs-up on the weather (sky–clear, visibility–9999), so we continued to Bucca. We arrived for our fourth offload of passengers and, within 10 minutes, we were on our way back to Udairi for our fifth and final turn.



Throughout the evening, I had practiced instrument approaches into the airfield to complete my instrument evaluation. At 20 miles out, we broke off from the formation, started to climb to 2,000 feet and contacted Udairi Ground Controlled Approach (GCA). During the climb, we listened to the other two aircraft talk back and forth about how suddenly the visibility had lessened. I could still see the lights at Udairi some 15 miles away. However, within 30 seconds, we lost visual contact with those lights and, 20 seconds later, could not see the stars above us. I immediately announced I was inadvertent instrument meteorological conditions (IIMC) and went to the instruments for real. We had the advantage since we were set up for instrument flight already, so the transition for us was quick and panic-free.

The other two aircraft were not having such a good time. Chalk 2 was losing visuals on Chalk 1 at 450 feet above ground level (AGL). A crewmember suddenly announced he was experiencing vertigo and becoming spatially disoriented (SD). The problem

was he never announced what station he was calling from (i.e., right door gunner, left door gunner). This caused confusion with the pilots in the front seats as to who was SD. The crew finally figured out it was not the pilots up front with SD; it was a crewmember in the back of the aircraft. Nevertheless, not 10 seconds later, the IP on the controls experienced SD and had to transfer the flight controls to his co-pilot. By then, the co-pilot who took the controls had lost visual contact with lead and the ground and, consequently, announced he was IIMC.

Chalk 1 was just about to do the same when the tower at Udairi airfield turned up the runway lights to full bright, enabling the lead aircraft to gain a visual on the runway. (The control tower had cut off the lights for us since we were using NVGs due to washing out of the runway on landing.)

My aircraft was vectored on downwind five miles east of the airfield at 2,000 feet mean sea level (MSL). Life was looking good for us. My left-seater pulled out Volume 7, *Approach Plates*, for our area and tuned in the TACAN for ALI AL SALEM AB, OKAS, in case we didn't break out of the dust storm while on approach into Udairi. The approach went well, as it should have, having two instrument examiners at the controls. I have to say our situation was very controlled compared to the first time this happened to me back in 1998 in Korea. That's another story I'll have to share one day.

> "We **TUNED INTO** the final controller's frequency and **LISTENED** like concerned parents **WATCHING** the driveway for their teenagers to **COME HOME** after their first night out with the family car."

By now, the other aircraft had climbed to 1,700 feet MSL and was vectored behind us to bring it around for the 360-degree precision approach into Udairi. We contacted the final controller, who started us on a descent within seconds of establishing communications with him. We had a tailwind of 30 knots, so I slowed down the aircraft to keep from having a high rate of descent while on the glide path. At one point, we were falling out of the sky at 1,000 feet per minute just to stay on glide path. This was too quick, so I gradually reduced my airspeed to put the aircraft in a safer rate of descent. I asked my left-seater to take the controls when he had visual with the runway. At 700 feet MSL, we broke out – only 100 feet above decision height for a missed approach. The left-seater announced he had a visual on the landing environment



and took the controls, landing the aircraft abeam Charlie taxiway. We taxied off the active and turned into parking.

We tuned into the final controller's frequency and listened like concerned parents watching the driveway for their teenagers to come home after their first night out with the family car. We sat there listening to the controller transmit heading adjustments to the pilots as the second aircraft made its way through the haboob: "On glide path, on course, three miles from touchdown, on glide path, on course." At one mile, with the help of NVGs, we could see the aircraft break out from the haboob and land safely to runway 36. All back safe and sound! I was proud of the crews that night. They all did as they were trained and brought their aircraft and buddies back home for more Global War on Terrorism missions.

Lessons Learned

1. IIMC Break-up Plan. Always brief a good IIMC break-up plan when flying NVGs in a desert environment. We did these briefings before every flight and they turned out to be excellent lessons for the junior crewmembers. They also reinforced why we conduct thorough briefings for every mission, no matter how routine or mundane the task may seem.



2. Crew Mix. Just because you throw an IP into the crew mix to plus-up the crew for risk mitigation doesn't mean he will be a player when the chips are down. When the IP in Chalk 3 gave the controls to his co-pilot, the survival of the whole crew was placed in the hands of the "weakest link."

A side note to all aviation trainers: Ensure you're holding everyone to the standard; just good enough is never good enough. Go the extra mile while training. You might not be around to see your hard work pay off, but you can bet there will be smiles on the faces of the crewmembers' Families when their Soldier gets off the bus after a deployment. One day, that aviator may have the lives of all onboard in his hands while the "high-time" guy is trying to find his "fourth point of contact" with both hands.

3. Experience. From a distance, I sensed bad weather coming and, as an air mission commander, should have turned the flight around and waited for the weather to pass. Given my experience in operating in the desert environment and knowing that weather forecasting can be a best guess at times in Kuwait and southern Iraq, I should have gone with my gut feeling and not gotten caught up in the "just-one-more-turn-and-we-are-done" mindset.

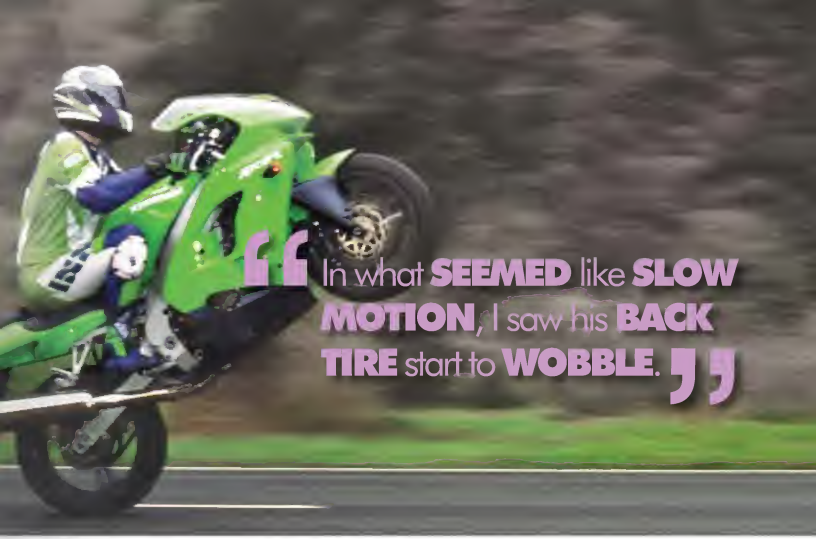
There are some things that cannot be trained, and only experience can teach you. Slow down and double-check your work if time permits. With 15-month deployment tours, we certainly were not short on time. During debrief, all crewmembers acknowledged at some point they had suspected reduced visibility. Remember the old adage: If you're thinking it, chances are some of the other crewmembers are too. Say something!

4. IIMC Training. We were fortunate we had been operating in the area of responsibility (AOR) around Udairi for a week and most of us had the opportunity to perform approaches into the airfield. Given the lack of IMC training conducted in the AOR in Iraq, things could've turned out quite differently had this not been the case. Trainers should continue to look for opportunities to train instruments. I know it's difficult to find time with heavy mission loads and threat; however, the extra effort could save lives in the future.

5. Committed is Committed. Once I announced I was IIMC and going to instruments, there should have been no second guessing. A few of our crewmembers in the back were continuing to call out when they saw a ground light flicker or a star above. This did not bother me; but with a more junior crew onboard, the temptation could exist for some to quit flying instruments and try to return to visual meteorological conditions (VMC). Trying to regain VMC has been a major contributing factor in many of the IIMC deaths Army aviation has experienced in the last 10 years. Crews should be briefed that once pilots are on the instruments, talk should be kept to a minimum so pilots can focus their attention on flying the aircraft.



CHIEF WARRANT OFFICER 2 JAMES C. TOOTLE
C Company, 1st Battalion, 2nd Aviation Regiment
Camp Page, Korea



> "In what **SEEMED** like **SLOW MOTION**, I saw his **BACK TIRE** start to **WOBBLE**."

As a kid, I had two dreams. My first was to become a pilot and fly. My second dream was to have a motorcycle. After starting flight school at Fort Rucker, Ala., I was finally able to afford a bike, so I bought a Kawasaki Ninja® ZX-6R. It was my first bike and I thought I would use it to learn on. I found a group of more experienced riders with bikes and interests similar to my own who could give me guidance on riding. Riding with a bunch of buddies was fantastic! I was thinking, "This is great; this is what I have always wanted to do!" Then we had some new riders join us, which is when things started getting interesting.

It was a Saturday and we were on our way to Panama City Beach, Fla. The eight of us were at the last stoplight before heading south out of Enterprise, Ala., which is about 90 miles north of the beach. The most experienced rider was at the head of the group with one of the new guys. When we got the green light to turn left, they took off like bats out of hell.

As I rode down the highway, I noticed the rider next to me was primarily focused on her MP3 player. She was riding unpredictably – slowing down, speeding up and swerving – so I decided to back off and keep her in front of me. When I looked ahead, I noticed the lead rider had done a wheelie going up the hill and was way ahead of the rest of us. At the time, I was still accelerating through 65 mph as I tried to keep up with the rest of the group.

I looked ahead to see how the female rider was doing and noticed the second guy in the formation was now doing a wheelie up a hill. In what seemed like slow motion, I saw his back tire start to wobble. The front wheel came down with the handlebars slamming from side to side as the bike began a high-speed head shake. In an instant, the bike went down and slid up the hill in a cloud of metal, plastic and fiberglass pieces.

I got on the brakes, pulled over and stopped on the side of the road. The female driver



was still playing with her MP3 player and reacted too late to avoid the crumpled motorcycle lying in the middle of the road. As her front tire hit the deformed bike, she flew head-first over the bike's handlebars and landed on her back.

After the excitement subsided, we checked the condition of the fallen riders. The "stunt dummy" wasn't wearing a jacket, so he had road rash over a large portion of his body and his T-shirt and jeans were shredded rags. His bike was a mangled, twisted piece of metal with fiberglass and plastic pieces spread over a hundred meters. Fortunately, he was wearing his helmet, which was smashed, cracked, scratched and gouged. All in all, he was lucky to walk away. The female rider had only a minor patch of road rash on the small of her back. It wasn't life threatening, but it was enough to remind her of what happens when you don't pay attention while riding.

TIPS FOR A SAFE RIDE

The author of the previous article showed how things can go wrong during a group ride. The following tips can help your group's ride be both safe and successful.

New Riders

New riders should be handled differently than established regular riders within a group. After all, we ride in groups because we're familiar with how each other performs, which allows us a margin of safety. The term "SEE," which is taught in all Motorcycle Safety Foundation (MSF) courses, can be used. Regular riders in a group should "See" the skills and attitudes of new riders, "Evaluate" those skills and "Execute" by discussing their strengths and weakness with them. If the new riders are offended, they may not be the right match for the group.

Keep Your Distance

The author's decision to distance himself from the MP3-distracted rider was a classic example of putting time and distance between a rider and a potential accident. If he hadn't, he could have been part of this crash, possibly injuring himself and worsening the injuries of the other riders.

Don't Multitask

Multitasking on a motorcycle, such as fiddling with an MP3 player, is asking for trouble. Riders must constantly watch the road and traffic around them so they can quickly react to problems. In addition, riders need both hands on the handlebars to effectively control their motorcycles.

High-speed Wobbles or "Head Shakes"

It appears the wobble was caused by the rider doing a wheelie, not some mechanical problem with his motorcycle. When a motorcycle is forced into a stunt, it tries to return to its natural position as soon as possible. Many professionals call a motorcycle's natural position – which is upright and traveling in a straight line – its "happy place." When a wobble

This was an eye-opening experience for me. It was the first accident I had ever seen and it showed me how riders need to respect a two-wheeled machine that can outdrive most of them. Since then, I have never been tempted to ride without the proper equipment and have been a lot more careful as I ride and maintain my bike.

This accident didn't deter me from riding, but it taught me a lesson. It showed me the importance of riding safely, staying within my abilities and always remaining alert. After all, I have seen the dramatic results when people don't!«

sets in, many riders panic and lock their arms, causing the bike to wobble, or head-shake, more violently. Sometimes the motorcycle will eject the errant rider and return to its happy place before falling over as its speed decreases. In such cases, the motorcycle has effectively gotten rid of the problem – the rider – and corrected itself.

Saving Your Hide

Tests show you don't have to slide very far in a pair of jeans before the road wears through the fabric and starts working on your hide. Select clothing designed to protect you in a crash. The simple rule of thumb is, "Dress for the crash, not for the ride."



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ATTENTION TO DETAIL

SGT. 1ST CLASS CASEY T. REEVES
Gunnery Branch
Directorate of Training, Doctrine, Combat Development and Experimentation
Fort Knox, Ky.

Attention to detail is an important skill that must be used in all aspects of personal and military life. When detailing your personal vehicle before a night out on the town, you probably pay special attention to ensure the tires are shiny, you've got two coats of wax on the body and the carpet is clean. You might even hang a new pine tree air freshener from the rearview mirror. So why not carry that attention to detail over to weapons maintenance and safety?

FYI

Soldiers and Leaders must ensure the appropriate gauge is used when setting headspace and timing on their weapons. The following are the National Stock Numbers (NSN) for the M2 and M3P headspace and timing gauges:

M2 - NSN 5220-00-535-1217
M3P - NSN 5280-13-116-6359



Over the past year, there have been numerous reported instances of M2 machine guns exploding. These incidents are not a result of Soldiers using restricted or faulty ammunition, or of a malfunctioning weapon. Rather, the weapons exploded as a result of Soldiers using the incorrect procedures and the wrong gauge when performing headspace and timing.

Recently, a Soldier was injured while firing his M2 machine gun during training at the National Training Center, Fort Irwin, Calif. The investigation into this incident revealed the Soldier used the headspace and timing gauge for the M3P Avenger machine gun instead of the gauge for the M2 machine gun. There is a distinct difference in both the size and thickness of the two gauges: the M2 gauge is shorter and thicker than the M3P gauge.

All Soldiers and Leaders must ensure the appropriate gauge is used when setting headspace and timing. Also, all unit supply sergeants and armorers must verify the appropriate gauge is issued with the machine gun.

Leaders and Soldiers can get so focused on the mission that they sometimes fail to ensure certain steps and procedures are done properly. Unfortunately, this assumption often leads to mistakes being made, equipment being damaged and Soldiers being injured or killed. It is imperative Leaders consistently adhere to the established procedures and ensure they are using the proper equipment to prevent injuries to personnel and damage to weapons.«







Peer to Peer

Make a movie save a life

1) Post your video on any social network site (Army YouTube, YouTube, Facebook, MySpace, etc.) during the competition period (Sept. 30, 2008 to March 31, 2009).

2) E-mail to Safe.P2PVideo@conus.army.mil or call commercial: 334-255-1390, DSN: 558-1390, to have your video entered in the competition. You must provide your name, age, phone number or e-mail address, and a link to the video.

3) All entries must be submitted no later than 11:59 p.m. Central Time on March 31, 2009.

4) A panel will judge video entries and select finalists. Finalists will be notified by e-mail or telephone.

For more information and contest rules for Peer to Peer, go to https://safety.army.mil/videocompetition.

THIS IS IT!



CHIEF WARRANT OFFICER 2 MARTY JEWELL
Mississippi Army National Guard
Jackson, Miss.

"This is it," the other pilot said as I took the flight controls and entered an autorotation to the best crash landing spot – a 2,000-foot rock cliff! I knew if we continued this autorotation, we were going to crash.

In July 2007, the Soldiers in my unit said goodbye to their Families in Jackson, Miss., and flew to Camp Atterbery, Ind., Germany and then into Kosovo.

The night before the flight had been a restless one for me. I didn't know why, but I was uneasy about something. Because of that uneasiness, I looked over the UH-60A Black Hawk extra carefully during the preflight inspection.

Before the six-ship air mission briefing, I read through the preflight checklist a second time and then we all gathered and briefed as a crew. Despite my preflight and crew briefing, I still had a strong feeling something was wrong. We had flown a lot together and our crew had grown closer since the beginning of our mobilization. I'd never done this before as a crew, but I asked the crew if we could take a minute to pray for God to watch over us. Shortly afterward, we departed Dubrovnik, Croatia, as Chalk 5 in the flight.

Everything was going fine until our flight path crossed a large cliff before proceeding over the Adriatic Sea. That's when it happened. We suddenly lost power on the No. 1 engine. I attempted to fly the aircraft over land as quickly as possible; however, the rotor drooped while in a sharp left-hand turn. I entered autorotation to restore the RPM, but also feared we had lost power on the No. 2 engine.

Once the low-rotor horn stopped blaring, I checked to see if "she" could still fly! I slowly pulled in the collective, slowing our rate of descent, and realized we still had power to fly. We flew the aircraft at the calculated single-engine airspeed, making slow, shallow turns up the side of the cliff and climbing to about 1,000 feet above ground level (AGL). With the aircraft still flying and seemingly stabilized, we started looking for open fields to make a forced landing.

On this day, we had a third pilot riding as a passenger in the rear who had a headset, so I delegated him and the other pilot to handle the checklist and advise me on the emergency. I overheard the senior crew chief direct the more junior crew chief to continue to look for open fields and other traffic.

I continued to fly the aircraft and adjusted my flight path to set me up nicely if I were forced to autorotate to the open fields below us. I was also aware of the 30-knot crosswind and was mentally trying to calm myself down before making any radio calls.

"EVERYTHING was going our **FLIGHT** path **CROSS CLIFF** before **PROCEEDI** the **ADRIATIC SEA.** That' **HAPPENED**. We **SUDDE POWER** on the **NO. 1 EN**

I declared an emergency with Dubrovnik tower and

requested fire and rescue assistance. I felt more comfortable when I observed the pilot in the back reading the checklist and continuing to communicate in a positive, calm manner to my co-pilot.

As I listened to the crew discuss the emergency procedures, I took note of the radio calls from air traffic control (ATC) and other aircraft; nevertheless, my main focus was to fly the aircraft and evaluate if we were still safe to fly.

The crew determined the No. 1 engine had failed to the low side; however, power was restored after all three pilots read the checklist and verified the proper engine power control lever. We conducted a roll-on landing and taxied to parking without further incident. The other members of the flight, after a short delay, continued on to Kosovo.

Despite a thorough maintenance inspection, ground runs, hover checks and test flights, the maintainer was not able to duplicate the problem; therefore, the helicopter was returned to service.

Lessons Learned

After many hours of reflection, I realized some of the things we did poorly and other elements where we excelled.

Positive

- Our crew had established a good team relationship by having open and positive communications, maintaining the standard of using the checklist and emphasizing good working habits before we needed them in the emergency.
- We prioritized tasks and divided workloads. Flying the aircraft is the No. 1 task; all other things are subordinate. Because we had trained and practiced sharing workloads in the past, the crewmembers picked up workloads and sequenced their words and actions into group problem-solving.
- Declare an emergency – it does not cost you any money! Declaring the emergency with tower freed me of making a lot of decisions, thereby decreasing our workload.
- After losing the engine, we conducted correct emergency procedures while the third pilot diagnosed the problem with the No. 1 engine using the -10 as instructed by me. I'm not suggesting that all UH-60 crews have an additional pilot in the rear of the aircraft to observe and correct emergencies. My thought process was to use all possible resources available during an emergency.

Negative

- Instead of establishing single-engine airspeed and taking a moment to evaluate the situation, we tried to maintain altitude. Having 120 knots indicated airspeed and turning left aggressively resulted in main rotor droop. My lesson learned: Never make a bad situation worse!

Summary

There's no way to be totally prepared for every emergency situation, but there are ways to significantly improve your odds of surviving one. Managing risks wisely helped me deal with the fears of losing an engine in flight while over water. For me, I know the habits I've developed, standards I abide by and judgments I make on every flight, no matter how exciting or boring these flights may be, largely determine my success or failure when an emergency occurs.

TIP

If circumstances allow, call for help! Whatever the situation, one rule always applies: Fly the aircraft! Troubleshoot, talk to ATC, calm the passengers – do whatever you have to do. Just remember that it's all for naught if you lose control of the aircraft in the process.

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THERE WHEN YOU NEED IT

VICKI ARNESON-BAKER
GS, Plans and Programs
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

As you pry off the battery cap, you realize you're not wearing eye protection. Sure, you've heard about the dangers of battery acid splashing into the eyes, but that always happens to the "other guy." Before you have time to blink or turn your head, it's now happened to you. Are you prepared for this type of emergency?

Emergency eyewash stations are designed to irrigate and flush the eyes in case of contact with hazardous chemicals. A chemical splash to the eyes can be especially dangerous; in fact, some chemicals can penetrate the eye within seconds. It is extremely important to immediately flush out the chemical before it causes severe damage or blindness.

Do You Need an Eyewash Station in Your Workplace?

The Occupational Safety and Health Administration (OSHA) has a general requirement which requires employers to provide an eyewash station as part of OSHA's medical and first aid standard: "Where eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use." (29 CFR 1910.151(c)).

So How Do You Know if You Need an Eyewash Station?

You will have to review the Material Safety Data Sheets (MSDS) for all the chemicals you have in your workplace and determine if they're corrosive. Corrosive materials include acids with a pH less than 2.5 and alkalis with a pH greater than 11.0.

Eyewash Station Requirements

Since most eyewash stations often go unused for months, sometimes even years, it's extremely important they are maintained in proper working condition in case of an emergency. If not, the consequences could cost you your eyesight. While OSHA offers the requirement to provide an emergency eyewash station, it does not provide specific instruction on their installation, operation and maintenance.

Many organizations turn to American National Standards Institute (ANSI) Z358.1, *Emergency Eyewash and Shower Equipment,* which provides detailed information regarding the installation and operation of these stations. In fact, Technical Bulletin (TB) 385-4, *Safety Requirements for Maintenance of*

DID YOU KNOW?

According to the American National Standards Institute, workplace eye injuries are a leading cause of eye trauma, vision loss and blindness. According to the American Academy of Ophthalmology, nearly 90 percent of all eye injuries could've been prevented by using the right kind of protective eyewear.



FYI

Contact your local safety office or industrial hygienist to assist you with identifying eye hazards, surveying your worksite and selecting proper eye protection. For more information, check out the following resources:

- **Tri-Service Vision Conservation & Readiness Program: http://chppm.apgea.army.mil/doem/vision/**
- **U.S. Army Optometry: http://usachppm.apgea.army.mil/doem/vision/army/**
- **DA Pam 40-506, *The Army Vision Conservation and Readiness Program***
- **Authorized Protective Eyewear List: https://peosoldier.army.mil/pmseq/eyewear.asp**
- **OSHA's Eye and Face Protection Web site: www.osha.gov/SLTC/eyefaceprotection/**
- **OSHA's Eye and Face Protection eTool: www.osha.gov/SLTC/etools/eyeandface/**
- **National Society to Prevent Blindness: www.preventblindness.org**



Electrical and Electronic Equipment, requires eyewash stations to meet these requirements. In addition, guidelines are also provided in Department of the Army Pamphlet 40-506, *The Army Vision Conservation and Readiness Program*, appendix G.

Here are some basic emergency eyewash guidelines you should be aware of:

- **Close enough to the hazard.** In most cases, eyewash stations should be located within 10 seconds of the hazard; however, for strong acids/caustics, the eyewash station may need to be within a few feet (such as battery charging stations).
- **Unobstructed access.** Ensure access is direct and nothing in the area will prevent easy access when vision is reduced by something in the eyes. For example, doors and mop buckets are considered obstructions. Eyewash stations should also be located on the same level as the hazard (i.e., no stairs) and in well-marked areas.
- **Quick activation.** The valve must activate within one second and remain on without further use of the hands.
- **Clean.** Use dust covers that easily pop off when an eyewash station is activated to protect the heads from airborne contaminants.
- **Test frequently.** Inspect and activate stations weekly to verify proper operations.

Additional information on the installation, such as flow rate, and other requirements can be found in ANSI 358.1. Remember to always follow the manufacturer's instructions.

All employees who are exposed to chemicals in the workplace should be trained on the location of emergency eyewash stations, how to activate them and how to flush the eyes with water for a minimum of 15 minutes before and, if possible, while transporting the injured individual to an optometrist or ophthalmologist.

IN THE BLINK OF AN EYE

VICKI ARNESON-BAKER
GS, Plans and Programs
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

More than 2,000 eye injuries occur daily in American workplaces. In the blink of an eye, you, too, can suffer an injury if you're not wearing proper protective equipment.

Eye protection is a crucial part of any workplace safety program, as workers are exposed to a variety of working conditions. According to the Occupational Safety and Health Administration (OSHA), one of the primary causes of eye injuries is the failure to wear proper eye protection for the job.

Of course, some people just don't like to wear safety glasses and goggles. One complaint is goggles tend to fog up. Fogging happens when sweat vaporizes and coats the inside of the lens. If you have this problem with goggles and glasses, wear a handkerchief or sweatband around your forehead to keep perspiration out.

Another complaint is eye protection devices are uncomfortable, but usually this is because they don't fit properly. Make sure you have the device properly adjusted for the correct fit or simply get another that fits better. You can see a lot better out of a properly fitted eye protection device than you can out of a glass eye.

Be smart and use eye protection when on the job, especially in high-risk areas such as the rifle range, boiler plant, machine shop and motor pool or when performing high-risk jobs such as welding, carpentry, grinding, mechanic work and machining metal. Like all safety devices, eye protection is there for you and your eyes. Wear it. What do you have to lose … other than your vision?

DON'T SHOOT YOUR EYE OUT

Editor's note: The following article was originally published in the September 2008 Naval Operational Medical Lessons Learned Newsletter.

Two recent All Army Activity messages have been published regarding the management of penetrating eye trauma and laser eye safety. When penetrating eye trauma caused by missile fragments or other shrapnel is diagnosed or suspected, there are two elements of care that are of paramount importance. These elements are explained in the Army surgeon general's message below.

Military combat eye protection (MCEP) can effectively prevent or mitigate severe eye injury; however, complacency leads to unnecessary ocular trauma, loss of vision and blindness. From Jan. 7 to May 8, 2008, 261 warriors sustained 339 eye injuries in combat (joint theater trauma registry). Only 5 percent of the 261 warriors were known to be wearing protective ballistic eyewear at the time of their injury. During this period, 92 percent of eye injuries were battle-related.

Improvised explosive devices accounted for 61 percent of the eye injuries, and significant eye injuries constituted 8.2 percent of all injured warriors admitted to level three medical treatment facilities. In February 2008, eye injuries were a disproportionately high percentage of medical evacuations at 31 percent (10 injuries), reversing a downward trend in eye injury evacuations since July 2007 (15 percent of medical evacuations; 32 injuries).

In all situations that pose more than minimal risk for eye injury, commanders must direct Soldiers to wear MCEP specified in the authorized protective eyewear list (APEL). Anecdotal reports suggest that Soldiers continue to purchase and wear non-APEL eyewear in moderate- and high-risk situations. Commanders should verify that post exchanges in their areas of operation carry only APEL items or ensure the distinct separation of APEL and non-APEL eyewear, in accordance with the AAFES managers' guide and store plan-o-gram, including signage. In addition, commanders must re-emphasize that contact lenses are not to be worn in the field, as they greatly increase the risk of corneal ulcer and severe injury.

Theater ophthalmologists go to extreme lengths to save injured eyes, but success depends on several factors: extent of initial injury, initial treatment at the scene and prompt medical and surgical treatment. If a penetrating eye injury is noted or suspected (as evidenced by lid or facial injury, bleeding in or around the lids, or eye or lid swelling), medical personnel must do the following:

- Perform a rapid field test for visual acuity. Tape a rigid eye shield over the

FYI

Comprehensive guidance and instructional materials for commanders, Soldiers, logisticians and clinicians on MCEP topics are available on Army Knowledge Online at https://www.us.army.mil/suite/page/533920.



eye(s). The recommended item is Shield Eye Surg Fox, 12s, NSN 6515-01-449-1016. Appropriate substitutes are Eye Shield Patient Optical, 12s, NSN 6540-01-347-1053, or Shield Eye Surg Goffman, 50s, NSN 6515-01-253-8165. At least three rigid eye shields should be carried by all 68W combat medics and requisitioned through normal MEDLOG channels.

Topical antibiotics should not be applied to an unrepaired open-eye injury. Pressure dressings (either head or ocular) must never be applied to an unshielded eye, as it may convert an open eye injury in which vision can be saved to one where total blindness occurs due to extrusion of globe contents.

Timely administration of antibiotics is paramount to preventing dangerous eye infections after penetrating wounds. Because theater ophthalmologists routinely administer systemic antibiotics promptly, routine administration of oral antibiotics by 68W combat medics is not recommended solely to prevent eye infections. However, if operating remotely in an isolated region, or if evacuation to theater definitive care is expected to take longer than three hours, administration of systemic antibiotics should be considered (if available, not contraindicated and if oral administration would not cause retching or vomiting). Specifically, 750 mg of Levofloxacin or 400 mg of Moxifloxacin can be administered orally at the time of initial treatment (recommended items: Levofloxacin 750mg, NSN 6505-01-487-6727, or Moxifloxacin Hydrochloride 400mg, 5S NSN 6505-01-516-3201).

If oral Moxifloxacin is unavailable or cannot be administered safely, casualties should receive intramuscular or intravenous antibiotics as soon as possible. Both the Fox rigid eye shield and oral Moxifloxacin have recently been added to the 68W surgical instrument and supply set individual, NSN 6545-01-534-6145, LIN U65480.

For more information, contact Col. Robert A. Mazzoli, ophthalmology consultant to the surgeon general, at (253) 968-1760, DSN 782-1760, or e-mail robert.mazzoli@us.army.mil.

HOW I BLEW UP THE KITCHEN

BOB VAN ELSBERG
Driving Task Force
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

It all started off with the comment – "It sure looks like a good cappuccino morning …"

It was early on a December morning and the thermometer nailed to the tree in my parents' front yard showed a nippy 28 F. It was one of those mornings where a steaming cup of cappuccino seemed like an excellent way to knock off the chill.

Mom had a cappuccino maker. It was one of those easy-to-use models. However, she'd never quite gotten comfortable with it. I think it went back to her younger days when her pressure cooker blew up. Therefore, the cappuccino maker sat in quiet solitude next to her trusted drip coffee maker until I came to visit. Knowing she liked cappuccino, I'd make her a cup each morning. Mom typically watched the process with great interest – but always from a discrete distance.

I headed into the kitchen one morning to make our cappuccinos. I topped off the filter with espresso grounds and filled the carafe with water, which I then poured into the cappuccino maker. I thought, "Hmm … plenty of coffee equals strong flavor – plenty of water equals lots of steam."

I turned on the cappuccino maker, but got temporarily distracted. Suddenly, I heard coffee squirting onto the countertop. When I looked at the cappuccino maker, I realized I hadn't quite gotten the carafe directly beneath the filter. I rushed over, turned off the machine and cleaned up the mess. Fortunately, I'd caught my mistake quickly and there was still enough steam to make our cappuccinos. I deftly maneuvered the carafe and filter so everything "seemed" lined up. It felt great to have "saved the day."

I looked at mom reassuringly and said, "See, everything will



be OK," and then turned on the steam again. What happened next will never be forgotten by either of us. Apparently, in my efforts to line things up, I'd loosened the filter in its recess. The steam shot it loose, slamming it on top of the carafe and spraying grounds in all directions.

I immediately jumped back. I was getting "fragged" by the scalding-hot grounds. I wasn't about to go over and try to turn off the machine. I'd already had surgery to remove foreign objects from my eyes when I was younger. I wanted to keep that a once-in-a-lifetime experience.

Mom and I backed away from the cappuccino maker until it finally sputtered out. I looked at mom. Her eyes were as big as saucers. She'd never touch that thing now!

It was my job to clean up the mess. Coffee grounds had gone into places in the kitchen I didn't even know existed! But at least they didn't go into my eyes. However, I learned a lesson. Situational awareness – paying attention to details – counts in both kitchens and combat!«

FYI

The Home Safety Council® is a national nonprofit organization dedicated to preventing home-related injuries – accidents that result in nearly 20,000 deaths and 21 million medical visits each year. For information on topics ranging from kitchen safety to fall prevention, please visit their Web site at www.homesafetycouncil.org.



ITTLE KITCHEN SAFETY

Ever since mankind learned how to cook with fire, people have been getting burned in the kitchen. Here are some tips from the Home Safety Council® to keep you from "cooking your goose."

▪ Be sure to read the operator's manual for each kitchen appliance prior to use.

▪ Always stay in the kitchen while cooking on the range, especially when frying food.

▪ Keep things that can burn, such as dishtowels, paper or plastic bags and curtains, at least three feet away from the range top.

▪ Keep grease from building up on the range top or inside the oven or toaster oven.

▪ Before cooking, roll up sleeves and use oven mitts. Loose-fitting clothes can touch a hot burner and catch fire. If clothes do catch fire, practice "Stop, Drop and Roll" by dropping immediately onto the ground and rolling over back and forth to put out the flames. Cool the burned area with cool water and seek medical attention for serious burns.

▪ Always turn pot handles toward the back of the range to prevent small children from reaching and pulling down a hot pan.

▪ Keep pans, hot beverages and trays that have just come out of the oven away from the edge of counters so that children are not able to reach them.

▪ Hot liquid and food burns often occur when children pull hanging tablecloths or placemats. Use tablecloths and decorations with care.

▪ Food cooked in a microwave can be dangerously hot. Remove the lids or other coverings from microwaved food carefully to prevent steam burns. Always test microwaved food for heat before giving it to children.

▪ When cooking, keep a close eye on children and pets and keep them away from the range at all times.



AVIATION

AH-64D



CLASS B

The aircraft sustained an overtorque of 143 percent as the crew recovered from a short-final approach with an attempted "go-around."

AH-64A



CLASS C

The aircraft encountered an undetermined object strike. Post-flight inspection revealed damage to all four main rotor blade tip caps and two tail rotor blades.

OH-58D(R)



CLASS C

A rotor droop occurred during an autorotation power recovery, resulting in the left skid contacting the ground. During the attempted recovery, the aircraft indicated an overtorque.

THE PILOT-IN-COMMAND MUST REMAIN AWARE OF THE AIRCRAFT'S ALTITUDE AND POSITION DURING THE MANEUVER TO ANTICIPATE THE POWER OF RECOVERY PORTION FOR TERMINATION AS DESCRIBED IN THE ATM.

UAS

MAV



CLASS C

The UAS crashed from about 180 feet above ground level (AGL) during Soldier training. It was recovered with damage.

RQ-7B



CLASS B

A series of in-flight anomalies occurred during flight. Emergency procedures were initiated after the air vehicle operator received a GENERATOR FAIL indication. The chute deployed and post-crash system components were recovered.

CLASS C

The UAS experienced an engine failure during flight. The recovery chute deployed and the system was recovered with damage.

GROUND

ACV



CLASS B

A civilian suffered a permanent partial disability when the Mine Resistant Ambush Protected (MRAP) vehicle he was riding in overturned. The Soldier driving the vehicle was negotiating a turn in wet road conditions when the accident occurred. The driver was not injured, and personal protective equipment (PPE) use was not reported.

AMV



CLASS A

A Soldier was killed when the M1151 he was driving overturned. The Soldier overcorrected after swerving to avoid a local national vehicle that cut in front of him. Three other Soldiers in the vehicle received non-life-threatening injuries.

Other

CLASS A

A Soldier was killed when the government-owned vehicle he was driving was struck at an intersection by a civilian pickup truck that had the right of way. The Soldier was wearing his seat belt.

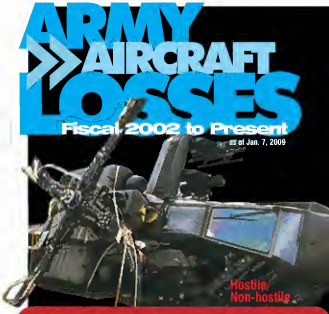
Personnel Injury



CLASS A

A Soldier was fatally injured while ground guiding a unit shipping container onto an M1075 Palletized Load System for transport. The 20-foot container separated from the crane and fell onto the Soldier.

A Soldier was refueling an MRAP vehicle when a fire ensued, resulting in burns to more than 60 percent of his body. The fire reportedly started after a cigarette lighter was used for illumination to determine the fuel level.



AH-64A/D	11/51
U/MH-60A/L	9/28
C/MH-47	8/19
OH-58D	11/29
TOTAL	39/127



AMV	5/7
ACV	2/1
PERSONNEL INJURY includes weapons-handling accidents	6/6
FIRE/ EXPLOSIVE	1/0
PROPERTY DAMAGE	0/0
TOTAL	14/14

A Soldier severed an artery in his arm when he attempted to go through a sliding glass door he did not realize was shut. He was taken to a local medical center, where he later died.

A Soldier collapsed about 20 minutes into a make-up physical fitness test run. The Soldier was unresponsive during paramedic treatment and later died.

DRIVING

POV



CLASS A

A Soldier on permanent change of station leave was driving his sport utility vehicle (SUV) when he rear-ended a motorcycle, went off the road and struck a tree. The SUV then caught fire and the Soldier was fatally injured. Seat belt use was not reported.

A Soldier on leave was riding in the rear seat of an SUV when the civilian driver, who was intoxicated, crashed into a utility pole. The Soldier was pronounced dead at the scene. Seat belt use was not reported.

A Soldier was riding in her privately owned vehicle (POV) when the driver, another Soldier, lost control and rolled the vehicle several times. The Soldier-passenger was not wearing her seat belt and was ejected during the crash. The driver and passenger were both transported to a local medical center, where the passenger was pronounced dead. The driver survived with minor injuries.

POM



CLASS A

A Soldier was one of a group of three riders traveling at high speed when he drifted off the right side of the road, overcorrected and struck the rider in front of him. He then went off the left side of the road and struck a utility pole. The Soldier, who had attended the required Motorcycle Safety Foundation training and was wearing a Department of Transportation-approved helmet, died at the scene.

LEADERS – DO YOUR RIDERS UNDERSTAND THRILLS ARE TEMPORARY BUT DEATH IS PERMANENT?

PEDESTRIAN

CLASS A

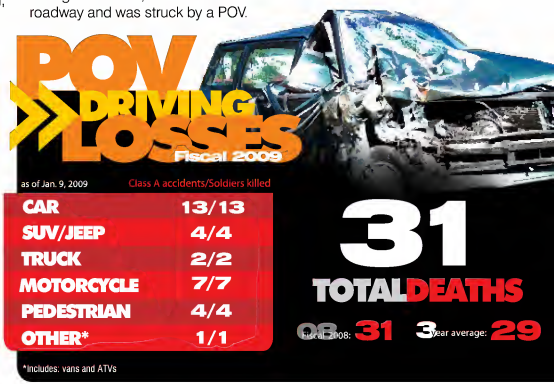
A Soldier was killed when he dismounted his tactical vehicle during movement, walked into the roadway and was struck by a POV. The Soldier was not using reflective PPE or a flashlight.

WHAT EQUIPMENT DOES YOUR SOP REQUIRE FOR SOLDIERS TO CONDUCT GROUND GUIDE OR ROAD GUARD DUTIES?

A Soldier was killed when he stopped his POV on the side of the roadway, walked into traffic and was struck by another vehicle, which fled the scene. Alcohol was a factor in this accident.

A Soldier was crossing a street during hours of darkness when he was struck by a pickup truck. The Soldier was taken to a local medical facility, where he later died. The intoxicated driver fled the scene but was located and charged with manslaughter.

Two Soldiers were crossing an interstate after dark to get to a restaurant when one was struck by a POV and killed.




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ARE WE THERE YET?
Be realistic about the distance you can cover in a day.
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ARE YOU READY?

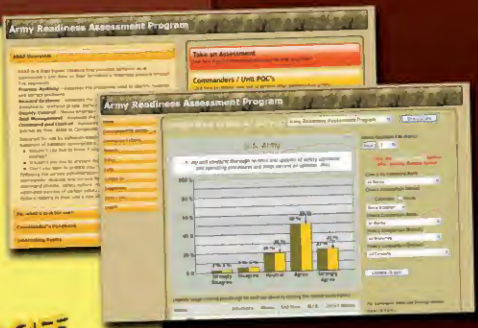
Wouldn't you like to know if your unit is about to experience a mishap?

Wouldn't you like to prevent the loss of personnel and equipment?

Don't you want to protect your combat power?

ARAP

ARMY READINESS ASSESSMENT PROGRAM



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ARMY SAFE IS ARMY STRONG